



THE UNIVERSITY *of* EDINBURGH

Edinburgh Research Explorer

The plural iPod: A study of technology in action

Citation for published version:

Prior, N 2014, 'The plural iPod: A study of technology in action' *Poetics*, vol. 42, pp. 22-39. DOI: 10.1016/j.poetic.2013.11.001

Digital Object Identifier (DOI):

[10.1016/j.poetic.2013.11.001](https://doi.org/10.1016/j.poetic.2013.11.001)

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Early version, also known as pre-print

Published In:

Poetics

Publisher Rights Statement:

© Prior, N. (2014). The plural iPod: A study of technology in action. *Poetics Today* , 42, 22-39. 10.1016/j.poetic.2013.11.001

General rights

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact openaccess@ed.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.



The Plural iPod: A Study of Technology in Action

Nick Prior, University of Edinburgh

1. Introduction

The pervasiveness of mobile digital devices has become a central component of developed, information-rich, capitalist societies. With intense marketing campaigns, faster network services and decreased prices, these portable devices have lodged themselves into the everyday routines and communicative lifeworlds of millions of individuals. Indeed, the attractiveness of mobile phones, MP3 players, digital cameras, laptops and so on, resides not just in the way they align with changing practices in how we work and play, blurring boundaries between real and virtual, private and public spaces, but also in the way they actively colour and constitute these very spaces and practices (Ling and Campbell, 2011).

In the pantheon of digital artifacts, few devices have been as much glorified as excoriated as the iPod (Levy, 2006).¹ In many ways the definitive icon of modern consumer capitalism, the iPod has taken centre stage in debates about changing listening habits, including the reinforcement of increasingly mobile and individualized practices of consumption and the construction of ever-more intimate relations between consumers and their devices (Bull, 2007; Jones, 2005). Part of a history of mobile audio devices that stretches back to the first automobile and transistor radios, the iPod brings into sharp focus questions at

¹ I'm aware that the iPod is a specific brand that stands in for a more generic type, the MP3 player. However, like other generic products (sellotape, durex, hoover) the iPod has become a catchall term for "portable audio player" and this is indicative of its market dominance and popular cultural appeal. In many respects it has replaced the generic category of "Walkman" and, for this reason, I'll be using the two terms interchangeably throughout this paper.

the heart of debates concerning the nature of modern societies - from the expanding reaches of the global culture industry to the micro-politics of the street. It is deeply embedded in how individuals manage their musical selves, and implicated in cultural and economic transformations wrought by processes of digitalization in the early 2000s (Kusek and Leonhard, 2005; Brabazon, 2010). Sylphlike in design and small enough to fit into a pocket the iPod has enormous storage capabilities and a powerful browse-click-play interface. It is a prime digital agent in an increasingly digital age.

Despite its sociological resonances, however, there is a surprising dearth of academic literature on users' engagements with the iPod and MP3 player. Much of the published material either incorporates the device into general surveys of business and consumer culture, treats it as an artefact of new media (Jenkins, 2006) or examines its potential in fostering digital literacies amongst young people (Cooper *et al*, 2009). From such work we learn a lot about how and why the iPod became a cultural icon and commercial success. As Consentino (2006) notes, the iPod's success was far from inevitable, but came about as a result of a unique confluence of Apple's business acumen, the take off of the iTunes store (which became a legal "skin" for downloading practice) and the idea of a "digital lifestyle". In the main, however, this work leaves unanswered important questions regarding the concrete uses of the device and its implications for social relations. The notable exception is the work of Michael Bull (2000; 2002; 2007), whose examinations of the role of personal audio devices in the city have shaped academic (Beer, 2007) and popular (Kahney, 2005) understandings of this area. Bull locates the iPod in regimes of mobile privatized listening that structure relations between users and their urban environments. In creating their own privatized enclaves, Bull argues, users manage the flow of time and space. They are solipsistic monads whose fantasies of control drive a wedge between themselves and other urban inhabitants.

Whilst drawing on Bull's important work, this paper attempts an empirical supplement and a conceptual challenge. Based on a study of iPod use amongst

155 undergraduate students, the paper argues that an emphasis on the mediated constitution of what Bull calls “auditory bubbles” (Bull, 2007: 3) raises compelling questions around urban dislocation. Crucial, here, is how users’ strategies of withdrawal and control are designed to enhance relations to the city in ways that attenuate the perceived monotony of urban routine. Just as the iPod becomes a technology for “warming up” the city so it serves to place users in a state of what Bull calls “accompanied solitude” (Bull, 2005: 343). But there’s much more to say, here, for restricting the analysis of iPod use to the dialectics of alienation-colonization results in a partial depiction. Evidence from the study, instead, points to assorted modalities of deployment and a strongly ethical component to the management of the iPod in urban settings. Users reported more varied and unpredictable uses for their devices, to cement everyday social relations as well as withdraw from them. They deftly managed the “affordances” (Hutchby, 2001) of the device in ways that extended its function beyond that of machinic cocoon, even abandoning its use when it was perceived to intrude too much into their lives.

These non-standardised engagements point up the need to augment an analysis of the technics of seclusion with attention to intra and inter-individual variations in use and users (Lahire, 2011). It means that we have to understand basic questions of demographic and utilitarian heterogeneity amongst user populations before we condemn them to a general state of solipsism. In evoking the deliberately provocative term “plural iPod” (provocative in that most commentators are inclined to see the iPod as a device whose effects are implacable and homogenizing), the paper suggests that we need to develop more sophisticated understandings of how mobile digital devices are used and appropriated in practice, not just by letting users tell their own stories but by listening carefully to how these stories point to anomalies, variations and discordances. The paper therefore takes its cue from work in the sociology of technology sensitized to the question of how technological artefacts are actioned by users and non-users (Pinch and Oudshoorn, 2003; Hutchby, 2001; Bell, 2006), where the daily currency of urban technologies and cultural forms are folded into the contingencies of everyday practices. From this perspective,

it will be argued, we get a more nuanced sense of the iPod in action and a less reductive depiction of users' engagements with digital audio technologies.

2. Mobile Technologies, Sound and the City

The recent explosion in mobile electronic and digital personal devices raises a set of important issues around the structure, constitution and experience of urban life. As digital networks have proliferated, so, it has been argued, urban landscapes have become striated with movements of data and the development of a digital infrastructure - fibre optics, internet cafes, mobile phone masts, satellite dishes, wifi hotspots, and so on (Graham, 2001). Cities have always been places of mobility, of course. But digital processes have cranked up the intensity of urban mobilities, leading authors to emphasise the importance of flow as a paradigmatic function of urban systems (Sheller and Urry, 2006). In an increasingly globalised, mobile world, the city is repositioned as a hub of diverse material and dematerialized exchanges, a site for the emergence of what Crang calls "transitory geographies" (2002) and what others have variously termed the "electronic agora" (Mitchell, 1996), the "informational city" (Castells, 1989) and "software-sorted geographies" (Graham, 2005).

How these mobilities play out in the everyday lives of urbanites is a key question. For if urbanism is, following Wirth a "way of life", (Wirth, 1938) then it is defined by the various practices through which these lives are given shape and meaning. With the advent of mobile Information Communication Technologies (ICTs) urbanites are repositioned in relation to their urban environments in three ways. Firstly, their connections to space and place are reconfigured, as the very "stuff" of the environment comprises material and non-material, physical and informational spaces - from geo-mapping technologies and satellite navigation systems to point of sale terminals and text messages (Graham, 2005). Secondly, the abundant proximities that characterize relations between urbanites and digital systems raises significant questions about the increasingly fuzzy boundaries between human bodies and non-human artefacts in increasingly technologised urban settings. Indeed, for

some, the insertion of the urbanite into high-tech spaces is nothing less than the cyborgification of everyday life (Shaw, 2010). Thirdly, the communicative lifeworlds of urbanites, including the strategies and means of sociality and entertainment, are increasingly mediated by digital personal devices. Here, the proliferation of smartphones, tablets, pdas, laptops and associated software protocols, have not only raised questions about how we work with, access and relate to information, but also how we work with, access and relate to each other.

This implies listening, too, of course. For if we attend to what Atkinson (2007) calls an “ecology of sound”, then the ebb and flow of urban life is evident in the multiple and cross-cutting ways cities sound out. It’s not simply that cities are louder, but that the urban complex is patterned and ordered according to a distribution of sonic qualities. Central to this urban distribution of sound is an expansion of the domains of spatio-sonic control in the hands of users as well as the ubiquitous placement of digital audio devices in everyday relations. To think about mobile audio devices is to be called to important issues around the nature of our listening spaces, and how we manage our personal lifeworlds (Arkette, 2004).

For all of these reasons, “the iPod matters” as Brabazon puts it (Brabazon, 2012: 6). It matters because it is implied in collapsing boundaries between work and home, playing and working, where commuting across urban, rural and suburban spaces is for many also part of their leisure time. It matters because of what it indicates in our attachments to technological devices, the adulation some people reserve for their gadgets, the uses they afford, and the personal and financial investments we make in them. It also matters at the level of production, not least because of the iPod’s role in radicalizing the mobility of digital music files in general, including mobilities associated with illicit exchanges and the resultant reconfiguration of the recording industry (Leonhard and Kusek, 2005; Leyshon, 2009). Finally, it matters because it forms a prism through which to assess contemporary debates around the shifting nature of community and the state of our cities.

But if digitally-mediated mobile listening is an increasingly dominant mode of listening, then we need to know more about how these devices are enrolled in the empirically-specific practices of urban populations. This is particularly important in a climate of commentary where treatments of the iPod tend to be characterized by either euphoric idealizations or damning castigations.

Indeed, few devices have been so roundly impugned as the iPod. For many, the device is a cultural shorthand for a society that is fragmenting and lost its civic values. The device has been charged with a host of modern problems and pathologies, from hearing loss and bystander behaviour (ignoring cries for help, for instance) to an increase in traffic accidents and military aggression (Michaels, 2009). In a recent study by Pieslak (2009), for instance, the author notes how MP3 players are deployed by U.S. soldiers to motivate them for battle, with playlists by “powerful” acts such as Metallica and Eminem being particularly prominent. iPod users are also popularly represented as obedient slaves plugged into their devices in a state of distraction, a trope that lends itself particularly well to humour and satire. In a 2008 episode of *The Simpsons*, for instance (“Mypods and Boomsticks”), iPod consumers have become the servants of a new race of master devices, whipped into shape by the very white earbuds they so desire.

Satire aside, anxieties have proliferated around the idea that the iPod has made us anti-social. Just as it filters out our sonic environment so, the argument goes, it filters out our social relationships by buffering relations to our urban environment and isolating urban beings from one another. The very design of the iPod lends itself to solitary listening, say its critics. With its miniaturized form factor and single headphone jack (early models of the Walkman had two jacks, critics point out), the iPod reinforces deeply individualized forms of listening with implications for how we commute, exercise, consume and (fail to) relate to one another. “Atomisation by little white boxes and cell phones. Society without the social”, writes Sullivan of the *Daily Telegraph* (Sullivan, quoted in Dubber, 2005). “Apple zombies. They’re

remote controlled from Cupertino", declares Kunzru (Kunzru, 2009: 20).

Of course, the charge that the iPod has dissolved the existence of close, proximate and diverse public relations resonates with enduring claims about urban decline and the death of community (de Castella, 2011). In its modern form, the idea that *gemeinschaft* relations are under erasure accompanies strongly normative denunciations of a host of modern conditions, including the anonymous city itself, the rise of feminism, increased occupational mobility and the advent of modern telecommunications. For Putnam (2000), for instance, the very edifice of civic life and communal engagement has been chipped away by the privatizing tendencies of modern media systems, whilst for Sennett (1977), the technical rationalization of urban life results in nothing less than an urbanism of disconnected and narcissistic strangers. More broadly, the idea that technology and consumer culture have ravaged or infantilized social life chimes with Adorno's by now infamous description of instrumental rationality and the seductions of the modern culture industry (Adorno, 2001). Here, the culture industry functions as a distraction machine, seducing the consumer into identifying with the pseudo-individualized commodities of capitalism.

3. Solipsistic Aestheticism and the Dialectics of Withdrawal

As far as the iPod is concerned, the most influential voice in these debates belongs to Michael Bull. Based on a study of iPod use amongst Western consumers, Bull explores how consumers construct the meaning and experience of their urban spaces through the management of audio technologies. Here, Bull draws on classical sociological questions raised by Simmel and Sennett on relations between modernity and the inner life of the urbanite to show how iPod culture represents "an expression of personal creativity coupled with a denial of the physicality of the city" (Bull, 2007: 9). It is emblematic of a mediated desire for separation in a society that is increasingly devoid of meaningful relations. Furthermore, Bull (2002) draws on Adorno's idea that the consumer ends up identifying with the false promise offered by commodity

capitalism - the various iPod models (the touch, nano, shuffle, classic) in their various colours perhaps best seen as a superficial aesthetic gloss for the orchestration of the desire for escape.

There is a long historical trajectory to this, of course. Indeed, for Bull, the history of mobile privatized sound reveals a gradual shrinkage of the acoustic envelopes inhabited by modern, western urbanites: from the grand amplified public spaces of the Gothic cathedrals, to the profoundly private but non-resonant sound of miniature radios, cassette recorders and Walkmen. Bull's early work on the latter traces what he calls the "routinization of sound in consumer culture" (Bull, 2002: 82) where the circuits of daily life are increasingly mediated by aural technologies. Whilst consumers are empowered by such technologies to fashion their own aestheticised worlds, these worlds conform to what Bull calls "sound looking" (Bull, 2002: 88). This is a gaze structured around a non-reciprocal relation to the other, as the subject asymmetrically apprehends the everyday as "spectacle" in the Debordian sense. Hence, users of the Walkman in the 1980s regularly reported their experiences of the city as "filmic": objects, people and sights were reduced to bit-part players in aestheticized scenes that reinforced the separation of user from their environment.

The iPod both reinforces and shrinks users' sensorial envelopes, for Bull, by redrawing the "spaces of culture...into a largely private and mobile auditory worship" (Bull, 2006: 107). The iPod's powerful digital capabilities are crucial here. With its vast memory and speedy touch interface, users have the power to aesthetically and cognitively master their environments. Managing the interface is now a matter of calling on the user's collections to soundtrack their movements and states of mind. Indeed, for iPod celebrants like Dylan Jones, there is a kind of magical quality to how the device re-enlivens our relationship to music. Like Eisenberg's (2005) utopian fantasy of a music machine, the iPod opens up consumers to the "infinite river of music" (Eisenberg, 2005: 222), morphing to accommodate different mood states, physical activities and movements. Yet, in retreating into their own "zone of

immunity and security", users are also seamlessly braided into a cloistered web of sound and space, for Bull (Bull, 2007: 3). They liberate themselves from what they perceive as the mundane and oppressive rhythms of daily life by creating "islands of communicative warmth in oceans of urban chill" (Bull, 2007: 9). This is why the perceived independence of the user from the city is really a deep dependence on a technics of seclusion that consolidate the ruinous caprices of the privatised city.

All of which is reinforced by cultures of automobility (Bull, 2004; Urry, 2004). Here, the car emerges as a technology of control through which drivers construct their privatized soundworlds, immersing themselves in the perfect sound booth while keeping the contingencies of the city at bay. With the advent of car radios, cassette decks, CD players and, most recently, MP3 facilities, drivers are cocooned in a "sonic envelope" that heightens the sensorial pleasures of driving alone, according to Bull (2004: 247). As with Simmel's urban dweller, they maintain a kind of mobile cognitive privacy, dealing with the dense and overwhelming urban complex by retreating into their sonic enclaves. But they do so by, again, exerting a paradoxical and illusory control over space, for the rich density and multiplicity of the city is effaced by drivers as "users feel empowered and safe but only as long as the sound of communication is turned up" (Bull, 2004: 253). This is something of a fragile state of affairs, of course - drivers can, after all, be seen and constrained by other drivers and pedestrians. But Bull raises the frightening prospect that a form of "mobile solipsism" is threatening the idea of collective urban space, replacing diverse urban communities with an increasingly homogenized "dead urban space" (Bull, 2004: 255), a diagnosis he shares with Sennett, Bauman, Augé and others.

A series of spatial and cognitive tendencies are therefore dialectically related, for Bull. Just as shared public space diminishes so it is replaced with an internalized fantasy of privatized empowerment that heighten the users' imagined relationship to that space. Just as users substitute an illusion of control for unmediated engagement with the city, so they are stripped of the

desire to engage with the contingent multiplicity of that world. And just as users colonize space, they are at the same time colonized by the culture industry. They experience a heightened sense of their musically-coloured environments, but it is a solipsistic enhancement that reinforces the emptiness of a hyper-commodified consumer capitalism. Indeed, one might argue that it is precisely Apple's masterstroke to get users to respond emotionally to their products, "warming up" the cold idea of technology as a black box and replacing it with an expressive, stylistically seductive and individualized product.

4. Music and Sociality

But to what extent can complex technologies like the iPod really be said to condition this historical shriveling of sonic and spatial domains? What we're left with, here, is an account of the mediated constriction of social worlds and the decay of pluralised spaces that leaves very little room for a recognition of the way music and technology nourish and expand these domains, even in seemingly counteracting conditions. It's been an insight of recent developments in the sociology of music that music plays an active role in ordering and resourcing social life (DeNora, 2000, 2004; Hennion, 2007). Here, the focus is less on the colonization of listeners' lifeworlds than on music's presence as a dynamic, unfolding set of properties that "get into" action. By turning to a broadly interactionist perspective, Tia DeNora, for instance, shows how music is a resource for the active crafting of the self in everyday life. It helps to fashion how our "inner lives" are felt and experienced, how our bodies move, and how our memories and identities are composed. In short, music is a vital ingredient in the on-going business of doing and being, part of the material through which agency is made, reflexively and aesthetically. Or DeNora herself puts it:

"....music has power. It is implicated in every dimension of social agency...how people compose their bodies, how they conduct themselves, how they experience the passage of time, how they feel" (DeNora, 2000: 17).

Here, much of the affective power of music comes from its activation in the lives of co-present others, as well as its location in socially meaningful gatherings, spaces and events. In other words, music is social not only because it provides a soundtrack to our inner lives (implying a deep personal attachment), but also because it acts as a resource for connecting and communicating with others (implying various aspects of collective identity). Indeed, if music operates on an “interactive plane” at all (DeNora, 2000: 111), then it follows that it lubricates all sorts of collaborative and expressive actions in private and public settings.

The idea that music links sociality and community has been recognized by others, too. While more willing than DeNora to emphasize the negative and constraining uses of music, such as its role in reproducing social divisions and status competition, Hesmondalgh argues that music is, nevertheless, “intensely social” to the extent that it can engender being with friends, lovers, family, strangers (2007: 514). Here, music’s pleasures are bound to its ability to bring people together or “otherwise to enhance feelings of shared experience, attachment, and solidarity towards other human being” (Hesmondalgh, 2013: 87). And it does so by creating opportunities for participatory action, enriching some of the more mundane forms of social interchange found in contemporary urban life: in shared performances and communal gatherings, birthday parties and football crowds.

Hesmondalgh’s point is that this is not the close, vernacular, pre-modern ideal of communal living found in some characterisations of music as the epitome of social solidarity. It is one that is anchored in the “(constrained) possibilities for musical enrichment available in ordinary life” (Hesmondalgh, 2013: 112). In other words, this is a diverse and provisional notion of collective experience comprised, we might add, by individuals who are multi-socialized and multi-determined (Lahire, 2011). But it is still bound to the possibility of civic and shared sociability for all that:

“If capitalist modernity creates...social fragmentation...it may also deserve

credit for creating more spaces where people can choose, or not, to engage in participatory activities...we need accounts that can find enrichment in the more demotic, mundane and compromised forms of sociality to be found in modern urban life" (Hesmondalgh, 2013: 101).

In any case, this emphasis on the inter-subjective currency of music, its ability to enhance life with others provides an alternative point from which to assess relations between culture and everyday urban. And even though both DeNora and Hesmondalgh underplay the role that technologies play in mediating these enhancements, their work does provide a useful counterpoint to the version of the privatized, seduced consumer found in Bull's work.

5. The Study

The aim of this study is to add some empirical weight to the academic literature on the digital mediation of urban experience by making a contribution to our understanding of the practices, motivations and attitudes of users' engagements with the MP3 player. The key objective is to explore how users adopt and adapt to these devices in their everyday relations with the city, attending in particular to the question of how such devices favour or not the disembedding of individuals from their urban and social environments.

In this instance, the city is Edinburgh, the capital of Scotland, situated at the eastern fringes of the Central Lowlands and with a population of 500,000. In many respects a typically-thriving European metropolis, Edinburgh is characterised by a compact central commercial area mixed with residences, parks, entertainment quarters and a financial district. Branded variously and at different historical moments as "Auld Reekie", "Athens of the North", and "City of Festivals" after its "strategically planned festivalized spaces" (Jamieson, 2004: 65), the Scottish capital is commonly characterized as split between an area of Georgian residences to the north known as the New Town and a more mixed-use area to the south, known as the Old Town. The University of Edinburgh is situated in the south the city, its main campus lying to the east of a rapidly gentrified district of up-market flats, restaurants and

cafes. Like all cities, however, Edinburgh is a complex agglomeration of multiple constituencies and spatialities, including contested, peripheral and marginalised zones that indicate an alternative, less unified and marketable vision of the city. These include the high-rise tower blocks and housing schemes located on the outskirts of the city, such as Craigmillar, and post-industrial areas such as the port of Leith, which has undergone deep socio-economic changes since the 1980s (Doucet, 2009).

The research is based on a three-year study conducted between 2009-2012 on the uses of the MP3 player amongst first year students at the University of Edinburgh. Respondents ($n=155$) were recruited from three consecutive instances of an introductory course in the School of Social and Political Science, each year providing around between 45-60 students each. The sample represents a cohort limited in age, gender and socio-economic range by respondents' enrolment in a social science course at a renowned British university, but with some residual demographic diversity. The youngest respondent was 17 whilst the oldest was 55, with a mean age of 21. The majority (66%) of participants were UK nationals, with the remaining (44%) coming from a diverse range of countries - 26 in total - from across Europe, Asia and North America. The composition reflects the recent internationalisation of the university's intake and the globalisation of higher education in western countries in general, giving us some insight into how young people, from a range of countries negotiate an increasingly digitalised global consumer culture (Lauder *et al*, 2006; Sambasivan *et al*, 2009). Within the sample, 71% of respondents ($n=110$) were female and 29% ($n=45$) male. This reflects the "feminised" nature of undergraduate social science in the UK but provides an opportunity to learn about how young women engage with their digital devices, a relatively neglected area in the social sciences (Leathwood and Read, 2009).

In line with the development of virtual methods in the social sciences in general (Hine, 2005), the data are derived from online journal entries. Participants posted entries on a weblog facility set up for the purpose of the

research. They were asked to reflect on their experiences of using MP3 players in the city: when, where and how they listened to their devices, the impact on their relations to the urban environment and with other people. Clear instructions were provided on how to complete blog entries in class, in tutorials and on the site. It was not, therefore, assumed, despite emergent digital literacies amongst young people in general, that all students had base competences in this regard (Lankshear and Knobel, 2008).

Beyond the constraints of the online journal format, free reign was given to the nature of the entries, with participants encouraged to use diverse modes of expression: anecdotes, aphorisms, poems, questions, statements, lyrics or rhetorical flourishes. The aim, here, was to allow students to express their personal stories about being in and moving through the technologically-mediated city as well as reflect on the close attachments they had with their MP3 players. Such accounts hint at what Turkle (2008) calls an “inner history” of the device as it enters into and is refracted through the sensibilities of users. In other words, whilst entries represent a slice of the user’s life, a snapshot limited in time and space, they also give a glimpse of the intimate portrayals respondents found suitable for representing their device relations.

The data generated around 50 pages of single-spaced pages of blog entries, or around 25,000 words, which were collected at the end of each year and analyzed at the end of the research period. After familiarizing myself with the entries in a process of close reading, the qualitative data software package NVivo 9 was used to help categorise and sort the data according to emergent codes and 43 nodes were generated and clustered by coding similarity to show potential internal relations between themes. While recognizing the advantages of the method of grounded theory (Glaser and Strauss 1967), the codes did not generate theoretical propositions *ex nihilo*, but as a result of a constant process of open curiosity that played across conceptual, empirical and substantive domains. This included a guarded and critical sensitivity to various concepts based on pre-existing readings of orthodoxies in the area, particularly those related to Michael Bull’s work. The data were, therefore, scrutinized for

emergent patterns both within and across years and referred back to the literatures on mobile listening practices and music consumption.

In the majority of cases the codes subsuming the highest number of responses have been given prominence in what follows in order to make judgments regarding the weight of particular practices – for instance, in gauging how many respondents reported that they used the iPod as a “social” rather than an “asocial” device. But it’s important to note that codes with less numerical responses have been just as important where they indicate a significant anomalous, plural or discrepant practice.

All the names of the respondents have been replaced with pseudonyms, although the nationality, gender and age of respondents are as reported.

6. Results

6.1 “Creating a Bubble for Myself”: Aesthetic Control and Urban Detachment

Around half (47%) of the total number of people who blogged reported that they used the iPod in ways congruent with Bull’s notion of the sonically heightened “auditory bubble”. In general, these respondents reported that the attraction of the MP3 player lay precisely in its ability to isolate them from what they perceived as the routine and disagreeable conditions of urban life. By creating their own soundscapes, these respondents defined the characteristics and mood of the domains of life they drifted through. They evoked spatial metaphors that implied hermetic or semi-hermetic seclusion (“bubble”, “envelope”, “world”), whilst explaining how this very seclusion depended upon the colouring of their urban spaces and routines with soundtracked movements.

As Nancy, a 19 year old female from the U.S.A. put it:

“There’s nothing more wonderful than escaping through my music. When I find the

right song to fit my mood, I put on my headphones and walk through the city. The city becomes my city. It reshapes and remolds to fit my mood, my tunes, my life. I feel as if I'm in control, and entirely aware of my surroundings - whether I know the area or not. With my iPod, the city becomes what I wish it to be".

Here, the city is made to conform to Nancy's fantasies of ownership and control. It is folded around her musical selections and physical movements in ways that accentuate the experiential flows of urban life. Space is cognitively reorganized, for Nancy, as "her" space. It is subject to her creative orderings in a way that heightens the city's sensuous attributes. In this respect, the search for sonically-heightened pleasure is intertwined with the attempt to shape both space and time. Sound helps constitute the city as "soft" (Raban, 1998), and customizable to Nancy's desires, but it does so in acts of cognitive orchestration that reaffirms her isolation. Richard, a 20 year old British male, reinforces this point:

"My iPod is an escape. It's a way of putting up a wall of pleasant sounds against the angry roar of traffic or the incessant murmurs of people around you. It isolates me from the outside world and in a way protects me from it. I guess it makes the city seem a little less frightening".

For Richard, the iPod is also an escape pod. It is deployed as a protective barrier against the city, one which compensates for the city's perceived lack of warmth and security. In turning the city into a safe zone, the meanings of which are familiarized, Richard reterritorialises urban space (Deleuze and Guattari, 1987). He neutralizes the unwanted contingencies of external sound by limiting or "gating" (in Bull's words) the sensorial world, a strategy dependent on offsetting two soundworlds. The careful selections he makes of his own sounds are a buffer against the hard spikes of the urban soundscape, confining unwanted conversations to a nullified exteriority.

This act of cognitive stage-management is predicated on users extracting meaning from the throng of passing people. Another key theme of the data was how users narrativized and personalized their place within the urban complex

by overlaying their own soundtracks onto its surface. Mundane journeys were re-encharmed as epic adventures whilst fantasies of escape were strategically opposed to the everyday. As Chia-Ling, a 17 year old Taiwanese student put it:

"When I have my headphones in, it's almost like I've taken a step back from my own life and have found a twenty-minute window into an alternative universe where the essay due tomorrow just doesn't exist".

Whereas for Regina, a 17 year old British student:

"My iPod allows me to have a soundtrack for my mood and activity. Whether I am working out at the gym, or walking along the street on a miserable wet day (as seems to be typical of Edinburgh!!!) I can put on a song or artist that matches my feelings, or alters them".

Truly a "technology of the self", (DeNora, 2000) the iPod marks the intimate currencies that run between these respondents' music and their psychic states. The construction of a soundtrack to urban life is dependent on aesthetic calculations that return as somatic pleasures. In effect, the user becomes their own DJ. Their choices are chromatically and emotionally inflected as they constantly monitor their mood states, managing playlists to feed or alter them. Unsurprisingly, this gave rise to some highly aestheticized reflections:

"As the bus turned the corner to face the sun setting behind Princes Street, the world became orange and full of dramatic black silhouettes. At the same time the song I was listening to on my MP3 player reached its crescendo - my life and its soundtrack were in perfect sync and I had goosebumps on my arms".

Here, Chris, a 33 year old British male, evokes the sensations of moving through Edinburgh as if it were a stage set, its urban dramas playing out as an observer of a scene meant solely for him. Like DeNora's (2000) respondents, he uses the iPod not just as a sensorial cocoon but to define, amplify and extend mood states. His description adheres to filmic conventions. The city is his *mise-en-scène*, (Beer, 2007) and its vivid shapes and colours are inflected by the

undulations of the music as it brings the urban landscape into perfect alignment with the movements of the bus.

This first modality of use, then, reprises the main findings in Bull's research. The use of personalized listening devices is underlain by a more or less explicit will to hold urban pollutions at bay. The iPod articulates with a desire for "accompanied solitude", itself a byproduct of the experience of urban life as a source of nuisances and mundanities. Here the iPod user (like the Walkman user before them) is cut off from auditory contact with the outside world, just as they remake the city according to their own fantasies of control (Hosokawa, 1984).

But there's more to say, here. For whilst certainly a present and powerful aspect of the data, the emphasis on urban detachment and aesthetic colonization is only part of the story. Running through respondent's reflections and strategies were alternative device possibilities that demand our attention - extra modalities of engagement that cannot be covered by a dialectic of mass mediated, communicative solitude.

6. 2 "I fail to interact, I'm selfish": The iPod as Moral Prism

A striking and consistent characteristic of the data was that even amongst those who routinely used the iPod as a barrier to the urban, there was clear insight into the implications and ethical character that underpinned their conduct. Over a third (37%) of users displayed a deep engagement with questions of the appropriateness of deployment. Some routinely added caveats, reversals and conditional clauses to their reports that indicated something like an existential struggle with the device. Others reflected on the implications of using the iPod in certain situations - how socially acceptable it was to wear headphones when making transactions in shops, on buses, or when spotting a friend on the street, for instance. Some lamented the symbolic potency of wearing the device as an indication that they were unavailable for interaction, whilst Chris agonized over what he may have missed in cutting himself from

others:

"I wonder, in making myself deaf to the world around me, how many times I may have ignored someone asking for directions, walked passed a friend or even missed a cry for help".

Far from unreflectively surrendering to some master pattern of withdrawal, many users actively confronted an ethics of space and community. They questioned and critically reflected on their use, working through the broader social implications of mediated withdrawal, including its impact on recognizing (in its broadest sense) fellow urbanites. In taking an external point of view on their own practices, in other words, users were able to situate their actions and, as will be argued later, modify their device strategies. In a sense, they adopted an embodied version of "situated ethics", where decisions around use were founded on an awareness of the immediate social milieu (Simons and Usher, 2000; Ong and Chen, 2010). Hence, as two respondents - Evan, a 19 year old British student, and Claire, a 17 year old British student - reflected:

"iPods have become a device that equally blocks you from coming out of your 'bubble', as it stops you from sharing your opinions with strangers and getting to know new people".

"You could compare wearing earphones and listening to music in the city to watching a film with the sound off and no subtitles on...you can see what's going on to an extent but there's a degree of separation that means you're never going to experience the full 'effect'".

Here, just as users declared themselves to be in their "bubbles", this very bubble forced them to reckon with a micro-politics of space, where encounters with street vendors, friends and strangers were registered and processed rather than passed over. The iPod in many ways acted not just as a device for playback and isolation but as a moral compass, in some sense prompting users to process and reflect on landscapes of responsibility: "it is a barrier for social interaction"; "it alienates me from other people"; "it forces me into

conformity" write three respondents. The very act of use was haunted by diverse moral possibilities, pouring into respondents elements of doubt and denial. Reports opened up a clearer view of how this single technology touched on the grounds on which ethical compacts were constructed, compacts that begin, according to Levinas (1999), when we look into another human being's face.

Admittedly, there might be a strong cohort effect at work here. First year Edinburgh University students, a good proportion from privileged backgrounds, might already be disposed to think more critically about these issues. The fact that the blog exercise was embedded in an introductory sociology course would also have set up certain expectations around the articulation of a critical "academic voice". That many of Bull's own respondents displayed similar insights into these ethical ambiguities (see Bull, 2007: 60-62), however, is evidence of how users across a range of demographics can be self-critically cognizant of the device's emplacement in everyday urban contexts, including how it potentially atomises users.

In any case, this is far from a mass manipulated version of conduct inherent in the assumptions of key modern authors - from Adorno and Lefebvre to Debord and Marcuse. In following a version of techno-cultural manipulation inherent in these accounts, the danger is that we fail to see how users are engaged with the very same questions that academics pose in their research, offering explanations and wrestling with quandaries that are central to the debates themselves. We might say that if users are more adept and knowing than we think, then the iPod is not merely a prism for researchers who see through their dialectical properties, but a prism also for users to articulate and negotiate emergent forms of etiquette and conduct. At the very least, these caveats and discordances are essential to the cultural construction and unfolding of meanings that users attach to their routines and practices and should not be dismissed as ideological *in toto* (Kirkpatrick, 2008).

6. 3 *"It is a way of sharing music with people": iPod Sociality*

The second modality of use reverses the orthodox emphasis on privatization and seclusion and demonstrates how devices can be used in ways that appear to be opposite or at least tangential to those “inscribed” into their design (Akrich and Latour, 1992). In reporting various aspects of what might be called iPod sociality, just under a third (31%) of users spoke of the obdurate desire to deploy their devices in order to cement external relations with others, even though the device was designed to do the opposite and point inwards. Perhaps this should not surprise us. As already mentioned, interaction is central to the pleasures of listening because the sharing or discussing of musical tastes is bound up with the formation of friendship networks, intimate relations and family ties (Frith, 2003). Music is, in fact, sustained by practices of congregation, collaboration and communication and it sustains them (Hesmondalgh, 2013).

Respondents used their iPods in order to promote or catalyze sociality in three ways. Firstly, several stated that they shared their headphones with a friend, a technique that is not uncommon amongst young people. Here, one earbud is worn by each in the opposite ear to that closest to their co-listener, a technique dependent on splitting the stereo signal into two single channels. Whilst this results in an impoverished audio experience, sound quality appears to be less important to these users than the need to maintain co-presence. “It’s a feeling that we have shared something important”, says Alina, a 19 year Hungarian student who splits the device in this way. For Alina, in fact, not only are the boundaries of the iPod maintained in order to reaffirm normal conversation, but its presence becomes the prompt for music-based sharing that cements her relationship.

If not quite a “hack”, this adaptive form of sharing points to the inventive aspects of “making do” in the sense implied by De Certeau, of creating new uses for existing products (De Certeau, 1988). Users found ways to creatively mould the affordances of the headphones (that is, the object’s physical and sensory characteristics) in order to maintain relations with others (Hutchby,

2001). Bridget, an 18 year old British student, stated that a splitter (a device that turns a single jack into two) "is an essential accessory" for the iPod for precisely this reason. Hanna, an 18 year old British student similarly stated that she "liked to have one earphone in and the other out so I can still join in with conversations and be involved socially". In all these cases, the iPod is neither sealed nor impermeable. Rather, its boundaries are leaky, dynamic and guarded: the very materiality of the device is policed by users in order to maintain participation in peer groups and to modulate listening states.

The second form of sociality mentioned by respondents was the use of the device in collective situations. Here, users reported that iPods were an important factor in lubricating everyday domestic interaction and a means to build relations with others. Several respondents described how they plugged their iPods into speakers located in shared flats, resulting in various forms of interaction, from dancing to debating. As Chloe, an 18 year old British student puts it:

"I don't just listen using my headphones but sometimes on speakers in the flat and this can bring about conversations or dancing around the kitchen!".

Here, the iPod becomes part of the normal traffic of interaction in shared domestic settings, as well as a catalyst for debate and discussion about music. Respondents noted that they often brought along their iPods to house parties and docked them into the main speakers, only for this to lead to conversations, debates and an exchange of tastes. Deirdre, an 18 year old British female student, sets out a typical scenario:

"I'm at a friend's flat, my iPod is plugged into the speakers and several people over the duration of the night look through the iPod. This allows for a lengthy discussion about Wu-Tang Clan, a connection with another person over the fact that we both have the entire Beatles back catalogue on our iPods, and several recommendations of artists based on what was on my iPod. The iPod becomes a way of expressing myself as a person, defined by the music I listen to, and relating me to other people based on their music taste".

Here, the iPod acts to disclose Deirdre's tastes and frames detailed exchanges around particular artists. It helps her evaluate whether her tastes are congruent with others'. But it also makes possible the ongoing re-shaping of these tastes in the ordinary flow of collective occasions and in Deirdre's case the formation of an unexpected acquaintance. Several respondents, in fact, noted that they met their friends by bonding over music in this way. They noted that their relationship to the device had changed as a result of these interactions, such that the "personal" aspect of the iPod was re-translated into a more open and outwardly facing aspect. Even when we acknowledge that there is something specific about the lifestyle situation of students that makes sharing flats, holding parties and managing the device in this way more prevalent, there is clearly a less solipsistic element to these transactions that implies the possibility of wider, situated and diverse possibilities.

Indeed, the third form of iPod sociality reported by users was the embeddedness of the device in broader ecologies of social media-based sharing. Some respondents noted that the iPod only made sense to them in the context of the acquisition and cataloguing of music, part of a digital infrastructure that included file sharing and online music-based communities. Carl, a 25 year old Swedish student, for instance, mentioned the importance of swapping online playlists with others and his participation in music-based online communities through sites like Spotify and Facebook. Zining, a 21 year old Chinese student, on the other hand, identified the importance of making playlists "on the go" with friends and her participation in social networking sites like xiami.com and weibo.com, where music is central to friendship connections. In both cases, the iPod was reported to be part and parcel of broader communities of listening and sharing across online and offline spaces (Leyshon, 2009). It was, for these users, a device whose functionality could not be disaggregated from its position in digital sites and services, many of them born precisely out of the desire to share, interact and exchange. As Baym and Ledbetter (2009) note, in fact, music is one of the strongest currencies through which friendships are cemented on social networking sites like MySpace and

Facebook. Shared tastes are crucial in forming and maintaining links with others, while the “spreading” or sharing of music-based media, links and playlists to friends and family is, as Jenkins *et al* (2013) suggest, a constitutive social logic of digital media. As for finding out about new music, Tepper and Hargittai’s (2009) study of 328 American college students reports that the majority find new music through others in their social network, often in face-to-face situations where the music is played directly to them by friends.

To some extent, the social aspect of iPods is hardly news. At the very beginnings of the iPod phenomenon, a number of commentators detailed cultures of interaction, including the practice of “jacking” amongst early adopters. Kahney noted in 2004 that when iPod users met on the streets of New Jersey, they would sometimes greet a fellow user by plugging their headphones into one another’s sockets (Grinspan, 2004). Other commentators have pointed to the rise of flash mobs, iPod raves and silent discos as a by-product of the device’s insertion into socio-spatial relations. Here, dancing and congregating are envisioned as impromptu situations that gather around cultures of techno-cultural pleasure (Molnár, 2010). And whilst some of the “jacking” and flash mob claims might be slightly overblown or even apocryphal, the point is that the advent of the iPod has co-evolved with new and reconfigured practices of interaction.² The explosion of music-sharing “apps”, aftermarket accessories and third-party add ons is now a key feature of digital formations and the iPod’s position in so-called Web 2.0 participatory media consumer practices (dubbed “prosumption” by some) has been crucial here (Jenkins, 2006; Ritzer and Jurgenson, 2010).

6.4 “I rarely use my iPod”: Resistance, Disenchantment and Non-use

The final modality is also a reversal. For finessing the idea of use raises important issues around so-called “non-users”, including how best to see the

² And here we would have to include podcasting and the existence of associated social and political communities.

motivations and behaviours of those who rarely or selectively engage with technological artefacts. Non-users have been traditionally given a marginal status in technological systems and academic research. Indeed, up until recently, the notion of the non-user was almost exclusively linked with processes of deprivation and inequality, expressed in academic and governmental anxieties around the "digital divide". As Selwyn (2003) notes, the discursive construction of the non-user tends to pathologise them as a problem, as deficient and lacking. If obstacles to access are overcome, they are "corrected" and turned into positive and active users.

And yet by taking non-use as seriously as we do use we may learn as much, if not more, about the how interaction with technology happens (Satchell and Dourish, 2009). For example, research on non-users in Human-Computer Interaction (HCI) suggests that non-users are not merely passive misfits waiting to become users with a few tweaks to their access rights (Verdegem and Verhoest, 2009). Instead, they are "active and important actors in shaping and negotiating the meanings of technology" (Wyatt, 2003: 69). Here, the very idea of non-use has to be identified as complex, ambiguous and fluid, as part and parcel of the continuum of use rather than its polar opposite.

Crucially, nearly half (44%) of the respondents detailed the intricate ways they created their own contextual frameworks and motivations for deactivating the device at specific times and places. Here, respondents spoke of the strategic calculations they made in deciding whether the device was getting in the way of their sensuous enjoyment of the city and their interactions with others. Consciously refraining from use was one way to revivify and reconnect with the city and more than one commuting respondent detailed how they purposely forgot to take their MP3 player with them in order to enhance their appreciation for the journey. Some respondents spoke of using the device sparingly and selectively because it was felt to undermine opportunities for connection. Cathy, an 18 year old British respondent, stated that she rarely used her iPod because she was more interested in "walking down the street and catching bits of other people's conversations; sharing the anger, happiness,

wisdom and laughter of the crowd around me, hearing everything I see". Juan-Pablo, an 18 year old Spanish respondent, similarly, stated that he regularly felt it necessary to manage the moments when the iPod was switched off in order not to miss out on the details of metropolitan life:

"Sometimes, when I have a few minutes to spare, I love to sit down and just observe the fascinating social situation of a metropolis in action. A businessman on his way to an important meeting or a foreign tourist out of their depth in a massive alien city. It is amazing how many details you miss in the mass of a city. Details harder to spot whilst listening to the latest Katy Perry tune!".

Integral to these responses was a profound "disenchantment" with the device (Satchell and Dourish, 2009), a sense that it both overly mediated interaction and undermined a more authentic set of relations to the city. Deliberately shutting off the device was one way these respondents re-established what they perceived as a more direct and immersive relationship with the physical world in order to attain greater emotional engagement with the vibrancies of city life. Indeed, for these users, the sounds of the city appeared to be more comforting precisely because of the sense of security and embeddedness they implied.

It's important to state that these practices of non-use were far from anomalous, abnormal or dysfunctional in the sample. They represent the fact that users were not straightforward in their use, and were not merely functioning according to one mode of distraction, escape or envelopment. Many were adeptly negotiating their device-mediated environments and balancing their love of music with their love of the city unplugged, echoing findings from other studies, including Sambasivan *et al's* (2009) on the avoidance practices of non-users of mobile devices. In other words, not using the iPod was a conscious decision based on a calculation of the costs and benefits of wearing the device at specific times and places, where restraint and resistance was part of the desire (a desire often born of a situated ethics as argued earlier) to respond to the city's rhythms, routines and its unique characters in an unhindered state.

Through various degrees of conscious distancing and disengagement, the “inner life” of the iPod was carefully managed to let the city breathe, enliven and enthrall.

6.5 Gender, Space and Diversity

Some of this variation in use was directly related to the social characteristics and identities of the users themselves, calling up issues related to the heterogeneous nature of user populations with different subject positions and situated experiences. For a start, cross-cutting issues of gender and space were apparent from the data, with several female respondents highlighting the perceived dangers of wearing iPods and the implications for personal safety. As Dominique, an 18 year old Spanish student put it:

“I never use it when walking around the city...I like to feel safe (i.e., without a valuable showing and/or the unawareness of a possible attacker)”.

This confirms research on the gendering of space in general, and the unequal ways men and women are positioned in and experience cities (Wajcman, 1991). To attenuate the perceived threat to their safety, some female respondents developed sophisticated tactics for staving off unwanted male attention, including pretending to use the device to signal unavailability whilst having the device switched off to keep their wits about them. Mary, a 19 year old British student reported that she commonly used her device as a social signal to avoid the advances of men, to procure safety and ward off danger:

“I have also used my iPod as a sort of safety precaution. Whilst walking down a small street late at night I put my iPod headphones in my ears but without playing any music. Previously, drunken/frightening men have shouted things at me whilst walking down the street, and although I can hear them as I am not listening to music, it APPEARS as though I cannot hear them with my headphones in”.

For Mary the iPod is deployed not just as a simulacra of being occupied. It represents for her a gendered tactic in the management of space, where the

iPod actually helps her cope with patriarchal afflictions. In constructing a wholly unexpected use for the device, Mary's subterfuge represents how technologies come to life when they are in the hands of users, an insight provided by feminist scholars drawing attention to how women perceive technological change in different ways to men (Cockburn, 2003). Interestingly, while many female respondents reported deploying the music on their iPods to motivate them during exercise ("the pounding, upbeat music motivates me to run faster or longer", says Caroline a 20 year old American student), they were also more likely to report doing so in the (perceived) safety of the gym rather than in open public spaces such as parks. "To listen to it in public situations makes me feel awkward", reports Janice, a 17 year old British student.

A key implication of attending to the situated nature of technologies in use is that we need to be much more understanding of how user populations inhabit diverse subject positions with varied social characteristics, bodies and needs: young and old, able-bodied and disabled, black and white, rural and urban, male and female, educated and non-educated, western and non-western. There is no single, universal user as much as multiple and diverse users with different orientations and lived experiences (Oudshoorn and Pinch, 2003). Thus, even in the relatively small and homogeneous sample of this study, variations were apparent in how users engaged and interpreted their devices. In the case of Selina, an 18 year old student who originated from a small rural town in Scotland, the iPod was sensed as freeing her from the cloying intimacy of village life. For Marie, a 25 year old British female a student with dyslexia and dyspraxia, on the other hand, the iPod was an impossible intrusion that fragmented her concentration and potentially put her safety at risk in carrying out everyday actions like crossing the road. For Bill, a 19 year old British student with mental health issues, the iPod and music in general helped him "combat the fear of hallucinations". Whereas for Yvette, a 42 year old British student who didn't have an MP3 player at all, a proxy relationship to the device was still manifest through her children: "I make them turn it off in order that they listen to what is going on around them", she writes.

Variations in use according to nationality were also evident. Andrea, a 32 year old Italian student stated that the cultural differences in the frequency of use between her home nation and the UK forced her to question her cultural identity and use when she returned home. Erin, a 19 year old from student Finland, on the other hand, was happy to report differences in how she experienced the collective use of iPods in settings between Scandinavia and Britain: "since I moved to Scotland, I've experienced that iPods and MP3 players are used socially all the time!", she reports. As for social class differences, while the sample did not provide sufficient detail and variety between users to warrant an extended comment in this respect - as Friedman (2012) notes, measuring the dispositions of upwardly mobile young people is fraught with difficulties - some reports certainly hinted at the existence of practices that might best be seen as part of a structured system of dispositions and the operation of a "musical habitus" (Bourdieu, 1994; Bennett *et al*, 2009). Several users identified the importance of classical music over pop music, for instance, in enhancing their enjoyment of the city, while others hinted at the prohibitive costs of keeping up with digital consumerism.

With an eye on social heterogeneity we might even extend diversity to include intra-variations in use, too, where individuals have changing orientations according to shifts in their lifecourse. In outlining his concept of the "plural actor" from which this present paper draws its title, Bernard Lahire (2011) shows how embodied dispositions are often incoherent and subject to changes in the subject's situation: familial, occupational, geographic, marital or political, for instance. Intra-individual variations in action, *contra* Bourdieu, are the product of uneven, incoherent and lumpy dispositions that comprise individual life trajectories. Actors are "plural", for Lahire, to the extent that they are multi-socialized and multi-determined. This leads to a relatively non-homogeneous, non-unified stock of schemes of action which vary "according to the social context in which they are led to develop" (Lahire 2011: 26).

Following Lahire, it becomes possible to show how iPod use is inflected by the shifting terrains of users lives: where they live and work, who their partners

and peer groups are, their political and sexual orientations, and so on. Students are, of course, already subject to acute periods of transition marked by a possible change of home, friendship networks, identity shifts and cultural orientations (Friedman, 2012). And some of this was reflected in their entries. Whereas Darren, an 18 year old male from the United States noted a distinct change in the frequency of use from his teenage years, Gunther, a 25 year old from Germany noted that when moving to a new city he would refrain from using the device until he felt safe. And whilst Deborah, a 29 year old Belgian female found the new stresses of university life required the iPod to act as a calming salve, Sara, a 23 year old British student reported that as a result of changes in the density and distribution of her friendship ties, she had no need to deploy the device as a form of accompanied solitude. In all these cases, the meanings and uses made of the iPod cannot be disentangled from the life changes wrought by the advent of a student lifestyle and the potential shifts - some subtle, some less so - in the emplacement of the device in the changing rhythms of users' lives.

Finally, although absolute non-users of MP3 players were rare - no doubt due to the high-level of users in this demographic group in general - some respondents did point to contingent and resistant reasons for evading the premise of the research altogether. These responses are interesting and informative in the way they illustrate not just economic disparities and the unevenness in technological take-up (iPods are, after all, prohibitively expensive for many), but also the potential ideological rejection of specific technologies. Categorized as so-called "refuseniks", those who consciously refuse to use Information Communication Technologies (ICTs) or may otherwise be disinterested in modern technology are also significant to the varied meanings and interpretations offered by actors in various stages of life (Verdegem and Verhoest, 2009). Hence, as Richard, an 18 year old British respondent put it pointedly:

"I ain't never had an iPod, nor a phone, fuck all y'all"

7. Conclusion: The Plural iPod

It might seem an obvious point, but it tends to get lost in the rather heated condemnations: the iPod is taken up in various ways by various people in various situations. Users do not comprise a homogeneous group, but operate with plural strategies within the affording constraints of the device itself. Indeed, if we start from the assumption that the device crosses into various lifeworlds of increasingly diverse populations then we get a different version of the iPod to that depicted by Michael Bull. We find a device whose meanings are far from synonymous with a single condition, a device that is dynamically and skillfully folded into multiple patterns of practice: to withdraw them from the urban, for sure, but also to enhance their social spheres, to reflect on their predicaments, to resist and prick their bubbles.

If as Oudshoorn and Pinch argue, we need to know “whatever users do with technology” (2003: 1), then we need to accept that whilst there may be a prescribed use for a technology, one that confirms the intentions of the designers or manufacturers, this is rarely reflected in a single or uniform deployment. This is because users themselves are variable, diverse and active. Not only do they “come in many different shapes and sizes” (Oudshoorn and Pinch, 2003: 6), but they also cultivate diverse strategies to manage their environments. In some respects, they are cultural experts whose appropriations are novel and interesting for how they interfere with and modulate the affording properties of technological objects (Bloomfield *et al*, 2010). This is why, for Grint and Woolgar, a technological device is “an unstable and indeterminate artefact whose precise significance is negotiated and interpreted but never settled” (Grint and Woolgar, 1997: 21).

If we gloss over the “interpretative flexibility” of such objects, the danger is that we reduce the fissured nature of device relations to a simple caricature. To argue, as Bull does, that the iPod is an inherently privatizing technology (Bull, 2007: 65) is therefore thought-provoking but partial. It certainly opens up questions around the nature of urban seclusion and the seductions of a highly-

developed consumer capitalism. It also raises important historical issues around shifts in how humans control their environments. But it also elides differences between an orthodox version of mobile listening and the totality of mobile listening practices, because to reprise a single modality is also to flatten some of the diverse and unpredictable strategies that are apparent in the testimonies and practices of users. In painting a rather dystopian and dichotomous picture of the iPod as hermetically sealed against the world, Bull takes a perfect metaphor (the bubble) to stand for an imperfect and varied set of cases. He assumes that iPod users are the seduced subjects of a privatizing capitalism who reproduce a pattern of withdrawal and colonization each time they use the device, irrespective of whether they use it to withdraw and colonize or not (and in the present study, many didn't).

Moving beyond deterministic or essentialist readings of technology requires a recognition of the diversity in user populations, but it also requires us to study how technologies are used *in vivo* and *in situ*. It is to take seriously the existence of different socio-economic, national, age and embodied differences, but also to register the creative agency of users and their often bumpy lifeworlds and trajectories. If we fail to sensitize to these issues, then we get a version of technology bereft of the everyday dissonances, disagreements and contingencies of practice and an urban subject who is emptied out of agency and the complexities of being engaged with technology.

In emphasizing the plurality of the iPod, I'm aware that I'm opening myself up to the charge of naïve pluralism: that I'm assuming a technological terrain of free-floating, unbounded and volitional use where the consumer is king. In theoretical and commonsensical terms, it is quite clear that the iPod is heavily embedded in complex structures of an ever-knowing global capitalism (Thrift, 2005), where the flow of informational goods and high-tech commodities are the currency of trans-national capital, and where the experiences of shopfloor workers in Chinese factories are very different to those of wealthy metropolitans and students at British universities. My argument, in a sense,

already assumes this. But it also insists that once “in the world”, these devices - like cultural artefacts and media in general (Press, 1994) - enter into the complex domains of users’ lives, get taken up in various situated practices and come to “mean” different things. In this sense, whilst it would be short-sighted to take the notion of the plural iPod literally to mean that it is socially, economically and interpretatively unbounded, it would be equally short-sighted to assume it is tethered to a single axis of colonization-alienation. Hence, whilst there are clear limits to the study, particularly in scope and scale - it is a study specific to a particular time, disciplinary cohort, age, location and so on - in many ways this strengthens the argument. For if variation can be found here amongst a relatively small sample population of university students then we can be pretty certain that it will be magnified in broader populations at large.

In showing how the iPod circulates through varied and reflexive practices, it is hoped that the article has contributed an additional dimension to the understanding of digital devices in action. As Beer notes, it is important that we conceive of new concepts and empirical agendas for a “subtle rethinking of how we might imagine and conduct further research into mobile listening” (Beer, 2007: 857). For, in the flow of everyday life, it is clear that the iPod can be porous, multi-faceted, expansive and flexibly actioned as well as hard, inviolate and confining. Alongside music, it can get “into action” (DeNora, 2000), intimately folding into the lifeworlds of users. We still need to know more about the social circumstances underlying people’s engagements and disengagements with mobile digital technologies: how and when they use these technologies, the rhythms of device-mediated spaces and temporalities and how and under what circumstances particular tendencies of the device are made apparent in particular settings (Bloomfield *et al*, 2010). We also need much more empirical research detailing the variety of reasons people negotiate, resist and reject mobile digital devices. But we’ll not get very far if we continue to adhere to undifferentiated readings of practices, not least because these very practices are always embedded in the lives of situated

actors activating and interpreting their possibilities of use.

Bibliography

Akrich, Madeleine and Latour, Bruno (1992) "A Summary of a Convenient Vocabulary for the Semiotics of Human and Nonhuman Assemblies", in Bijker, Weibe and Law, John (eds) *Shaping Technology, Building Society: Studies in Sociotechnical Change*. Cambridge, Mass: MIT Press: 259-264.

Arkette, Sophie (2004) "Sounds Like City", *Theory, Culture and Society*, Vol. 21, No. 1: 159-168.

Atkinson, Rowland (2007) "Ecology of Sound: The Sonic Order of Urban Space", *Urban Studies*, Vol. 44, No. 10: 1905-1917.

Beer, David (2007) "Tune Out: Music, Soundscapes and the Urban *Mise-en-Scène*", *Information, Communication and Society*, Vol. 10, No. 6: 846-866.

Bell, David (2006) *Science, Technology and Culture*, Maidenhead: Open University Press.

Bennett, Tony, Savage, Mike, Silva, Elizabeth, Warde, Alan, Modesto, Gayo-Cal, and Wright, David (2009) *Culture, Class, Distinction*, London: Routledge.

Bloomfield, Brian P., Latham, Yvonne and Vurdubakis, Theo (2010) "Bodies, Technologies and Action Possibilities: When is an Affordance", *Sociology*, Vol. 44, No. 3: 415-433.

Bourdieu, Pierre (1994) *Distinction: A Social Critique of the Judgment of Taste*, Routledge and Kegan Paul: London.

Brabazon, Tara (2012) *Popular Music: Topics, Trends and Trajectories*, London: Sage.

Bull, Michael (2000) *Sounding Out the City: Personal Stereos and the Management of Everyday Life*, Oxford: Berg.

Bull, Michael (2002) "The Seduction of Sound in Consumer Culture: Investigating Walkman Desires", *Journal of Consumer Culture*, Vol. 2, No. 1: 81-101.

Bull, Michael (2004) "Automobility and the Power of Sound", *Theory, Culture and Society*, 21(4-5): 243-259.

Bull, Michael (2005) "No Dead Air! The iPod and the Culture of Mobile Listening", *Leisure Studies*, Vol. 24, No. 4: 343-355.

Bull, Michael (2007) *Sound Moves: iPod Culture and Urban Experience*, London: Routledge.

Castells, Manuel (1989) *The Informational City: Information Technology and the Urban-Regional Process*, Oxford: Blackwell.

Cockburn, Cynthia (2003) "The Material of Male Power", in MacKenzie, Donald and Wajcman, Judy (eds) *The Social Shaping of Technology*, Buckingham: Open University Press.

Consentino, Gabrielle (2006) "'Hacking' the iPod: A Look Inside Apple's Portable Music Player", in Ayers, Michael D. (ed) *Cybersounds: Essays on Virtual Music Culture*, New York: Peter Lang.

Cooper, Steve, Dale, Crispin and Spencer, Steve (2009) "A Tutor in your Back Pocket: Reflections on the use of iPods and Podcasting in an Undergraduate Popular Music Programme", *British Journal of Music Education*, Vol. 26: No. 1: 85-97.

Crang, Mike (2002) "Commentary", *Environment and Planning A*, Vol. 34, No.4: 569-574.

De Castella, Tom (2011) "Has the iPod Made us Anti-social?", *BBC News Magazine*, 27th September 2011.

<http://www.bbc.co.uk/news/magazine-15066957> [date accessed: January 29th 2013].

De Certeau, Michel (1984) *The Practice of Everyday Life*, London: University of California Press.

Deleuze, Gilles and Guattari, Félix (1987) *A Thousand Plateaus: Capitalism and Schizophrenia*, London: Continuum.

DeNora, Tia (2000) *Music in Everyday Life*, Cambridge: Cambridge University Press.

DeNora, Tia (2004) "Historical Perspectives in Music Sociology", *Poetics* 32 : 211-221.

Doucet, Brian (2009) "Living Through Gentrification: Subjective Experiences of Local, Non-Gentrifying Residents in Leith, Edinburgh", *Journal of Housing and the Built Environment*, Vol. 24, No.3: 299-315.

Dubber, Andrew (2005) "There is no 'We' in 'iPod'", unpublished conference paper,

<http://andrewdubber.com/2005/10/there-is-no-we-in-ipod/> [date accessed: January 28th 2013].

Eisenberg, Evan (2005) *The Recording Angel: Music, Records and Culture from Aristotle to Zappa*, London: Yale University Press.

Elliot, Heather (1997) "The Use of Diaries in Sociological Research on Health Experience", *Sociological Research Online*, 2:2

<http://www.socresonline.org.uk/2/2/7.html> [date accessed: 20th January, 2013].

Frith, Simon (2003) "Music and Everyday Life", in Clayton, Martin, Herbert, Trevor and Middleton, Richard (eds) *The Cultural Study of Music: A Critical Introduction*, London: Routledge: 92-101.

Glaser, Barney and Strauss, Anselm (1967) *The Discovery of Grounded Theory*, New York: Aldine de Gruyter.

Graham, Stephen (2001) "The City as Sociotechnical Process: Networked Mobilities and Urban Social Inequalities", *City*, Vol. 5, No. 3: 339-349.

Graham, Stephen (2005) "Software-Sorted Geographies", *Progress in Human Geography*, Vol. 29, No. 5: 562-580.

Green, Nicola (2002) "On the Move: Technology, Mobility, and the Mediation of Social Time and Space", *The Information Society*, No. 18: 281-292.

Grinspan, Izzy (2004) "Pod People", *The Village Voice*, February 3rd, 2004.
<http://www.villagevoice.com/2004-02-03/news/pod-people/1/> [date accessed: 28th January, 2013).

Grint, Keith and Woolgar, Steve (1997) *The Machine at Work: Technology, Work and Organization*, Cambridge: Polity.

Hennion, Antoine (2007) "Those Things That Hold Us Together: Taste and Sociology", *Cultural Sociology*, 1(1): 97-114.

Hesmondalgh, David (2007) "Audiences and Everyday Aesthetics: Talking About Good and Bad Music", *European Journal of Cultural Studies*, 10(4): 507-527.

Hesmondalgh, David (2013) *Why Music Matters*, Oxford: Wiley Blackwell.

Hine, Christine (ed) (2005) *Virtual Methods: Issues in Social Research on the Internet*, Oxford: Berg.

Hosokawa, Shuhei (2008) "The Walkman Effect", *Popular Music*, Vol. 4 (January 1984): 165-180.

Hutchby, Ian (2001) *Conversation and Technology: From the Telephone to the Internet*, Cambridge: Polity.

Jamieson, Kirstie (2004) "The Festival Gaze and its Boundaries", *Space and Culture*, Vol. 7, No. 1: 64-75.

Jenkins, Henry (2006) *Convergence Culture: Where Old and New Media Collide*, London: New York University Press.

Jones, Dylan (2005) *iPod, Therefore I Am*, London: Phoenix.

Kahney, Leander (2005) *The Cult of iPod*, San Francisco: No Starch Press.

Kirkpatrick, Graeme (2008) *Technology and Social Power*, Basingstoke: Palgrave Macmillan.

Kunzru, Hari (2009) "Twice Upon a Time (Listening to New York)", *Reflections on Moondog*, in *Loops*, Issue 1: 10-29.

Kusek, David and Leonhard, Gerd (2005) *The Future of Music: Manifesto for the Digital Music Revolution*, Boston: Berklee Press.

Lahrire, Bernard (2011) *The Plural Actor*, Cambridge: Polity.

Lankshear, Colin and Knobel, Michelle (2008) *Digital Literacies: Concepts, Policies and Practices*, London: Peter Lang.

Lauder, Hugh, Brown, Phil, Dillabough, Jo-Anne and Halsey, A. H. (2006) *Education, Globalization and Social Change*, Oxford: Oxford University Press.

Leathwood, Carole and Read, Barbara (2009) *Gender and the Changing Face of Higher Education: A Feminised Future?* Maidenhead: Open University Press and McGraw-Hill.

Levinas, Emmanuel (1999) *Totality and Infinity*, Pittsburgh: Duquesne University Press.

Levy, Steven (2006) *The Perfect Thing: How the iPod Shuffles Commerce, Culture and Coolness*, London: Simon and Schuster.

Leyshon, Andrew (2009) "The Software Slump? Digital Music, the Democratisation of Technology, and the Decline of the Recording Sector within the Musical Economy", *Environment and Planning A*, Vol. 41: 1309-1331.

Ling, Rich and Campbell, Scott (2011) *Mobile Communication: Bringing Us Together and Tearing Us Apart*, Piscataway, NJ: Transaction Publishers.

Michaels, Sean (2009) "Shhhhh! EU Plans to Turn Down the Volume on MP3 Players", *The Guardian*, Monday 14th December 2009.

<http://www.guardian.co.uk/music/2009/dec/14/eu-mp3-volume-restriction>

[date accessed: January 29th 2013].

Mitchell, William (1996) *City of Bits: Space, Place and the Infobahn*, Cambridge, Mass.: MIT Press.

Molnár, Virág (2010) "Reframing Public Space Through Digital Mobilization: Flash Mob and the Futility of Contemporary Urban Youth Culture",

<http://www.scribd.com/doc/91277534/Reframing-Public-Space>, accessed

January 29th 2013.

Ong, Aihwa and Chen, Nancy N. (eds.) (2010) *Asian Biotech: Ethics and Communities of Fate*, Duke University Press.

Oudshoorn, Nelly and Pinch, Trevor (2003) *How Users Matter: The Co-Construction of Users and Technologies*, London: MIT Press.

Pieslak, Jonathan (2009) *Sound Targets: American Soldier and Music in the Iraq War*, Bloomington and Indianapolis: Indiana University Press.

Press, Andrea (1994) "The Sociology of Cultural Reception: Notes Toward an Emerging Paradigm", in Diana Crane (ed.) *The Sociology of Culture*, Oxford: Blackwell.

Prior, Nick (2011) "Critique and Renewal in the Sociology of Music: Bourdieu and Beyond", *Cultural Sociology*, 5:1, 2011: 121-138.

Putnam, Robert (2000) *Bowling Alone: The Collapse and Revival of American Community*, New York: Simon and Schuster.

Raban, Jonathan (1998) *The Soft City*, London: Harvill Press.

Ritzer, George and Jurgenson, Nathan (2010) "Production, Consumption, Prosumption", *Journal of Consumer Culture*, Vol. 10, No. 1: 13-36.

Sambasivan, Nithya, Ventä, Leena, Mäntyjärvi, Jani, Isomursu, Minna and Häkkinen (2009) "Rhythms of Non-Use of Device Ensembles", *CHI 2009*, Spotlight on Works in Progress: Session 2: 4531-4536.

Satchell, Christine and Dourish, Paul (2009) "Beyond the User: Use and Non-Use in HCI", *Proceedings of the Australasian Conference on Computer-Human Interaction*, OzCHI 2009 (Melbourne, Australia): 9-16.

Selwyn, Neil (2003) "Apart From Technology: Understanding People's Non-Use of Information and Communication Technologies in Everyday Life", *Technology and Society*, Vol. 25 (2003): 99-116.

Sennett, Richard (1977) *The Fall of Public Man*, Cambridge: Cambridge University Press.

Shaw, Rhonda (2003) "'Our Bodies, Ourselves', Technology, and Questions of Ethics: Cyberfeminism and the Lived Body", *Australian Feminist Studies*, Vol. 18, No. 40: 45-55.

Sheller, Mimi and Urry, John (eds) (2006) *Mobile Technologies and the City*, London: Routledge.

Simons, Helen and Usher, Robin (2000) *Situated Ethics in Educational Research*, London: Routledge.

Thrift, Nigel (2005) *Knowing Capitalism*, London: Sage.

Turkle, Sherry (2008) *The Inner History of Devices*, London: MIT Press.

Urry, John (2004) "The System of Automobility", *Theory, Culture and Society*, 21(4-5): 25-39.

Wajcman, Judy (1991) *Feminism Confronts Technology*, Cambridge: Polity.

Wirth, Louis (1938) "Urbanism as a Way of Life", *The American Journal of Sociology*, Vol. 44, No. 1: 1-24.

Wyatt, Sally (2003) "Non-Users Also Matter: The Construction of Users and Non-Users of the Internet", in Oudshoorn, Nelly and Pinch, Trevor (2003) *How Users Matter: The Co-Construction of Users and Technologies*, London: MIT Press.

